

## Mollusks from Miocene hydrocarbon-seep deposits in the Ilocos-Central Luzon Basin, Luzon Island, Philippines

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We report 35 molluscan species from Late Miocene cold-seep carbonates from the Amlang Formation in the Ilocos- Central Luzon Basin in Luzon Island, Philippines, collected in a large quarry in the province of Pangasinan. The 19 bivalve species are largely representatives of chemosymbiotic families; the six new species are the nuculid *Acila (Truncacila) interferencia* sp. nov., the mytilid *Bathymodiolus labayugensis* sp. nov., the thyasirid *Conchocele pangasinanensis* sp. nov., the lucinid *Megaxinus gorrospei* sp. nov., the vesicomyid *Pliocardia ballesterosi* sp. nov., and *Sisonia frijellanae* gen. et sp. nov., of uncertain taxonomic affinity. The 16 gastropods include one species restricted to seep deposits, the neritid species *Thalassonerita hagai* sp. nov.; the buccinid *Enigmaticolus semisulcata* represents the first fossil record of its genus. Biogeographically, the Pangasinan seep fauna shows several links to Neogene seep faunas in other tropical/subtropical areas, namely the Mediterranean and Caribbean regions. In contrast, shared taxa with nearby but extratropical Japan are few, as are shared taxa with Miocene seep deposits in New Zealand.

**Key words:** Gastropoda, Bivalvia, chemosynthesis-based ecosystem, deep sea, hydrocarbon seep, Miocene, Philippines.

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